

2. Remove all parts from the cleaner and blow dry with compressed air. Blow out the jets with compressed air. *Do not* use a piece of wire to clean them as minor gouges in the jet can alter flow rate and upset the fuel-air mixture.

3. Be sure to clean out the overflow tube in the float bowl from both ends (B, Figure 21).

4. Inspect the end of the float valve needle (Figure 25) for wear or damage; replace if necessary.

5. Inspect the condition of all O-ring seals. O-ring seals tend to become hardened after prolonged use and heat and therefore lose their ability to seal properly.

6. On models so equipped, clean the filter screen with a medium soft toothbrush and solvent. Thoroughly dry with compressed air. Replace the filter screen if it is broken or damaged.

CARBURETOR ADJUSTMENTS

Float Adjustment

The carburetor assembly has to be removed and partially disassembled for this adjustment.

1. Remove the carburetor as described in this chapter.

2. Remove the float bowl from the main body.

3. Hold the carburetor so the float arm is just touching the float needle, not pushing it down. Use a float level gauge, vernier caliper or small ruler (Figure 26) and measure the distance from the carburetor body to the float. The correct height is listed in Table 1.

4A. On models equipped with a plastic float the float assembly must be replaced if float height is incorrect. The float tang cannot be adjusted as it will break off.

4B. On models with a metal float assembly, adjust by carefully bending the tang on the float arm (Figure 27). If the float level is set too high, the result will be a rich fuel-air mixture. If it is set too low the mixture will be too lean.

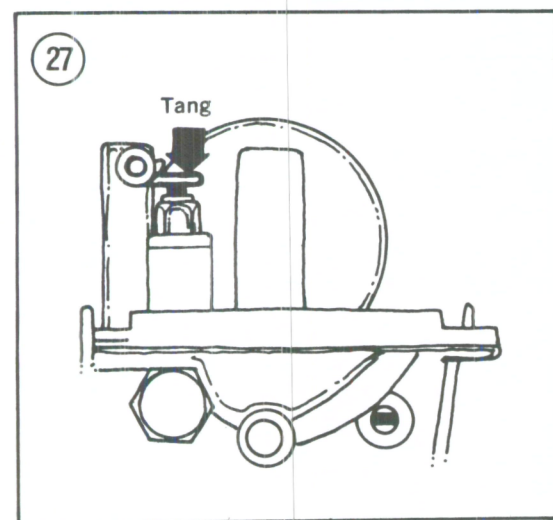
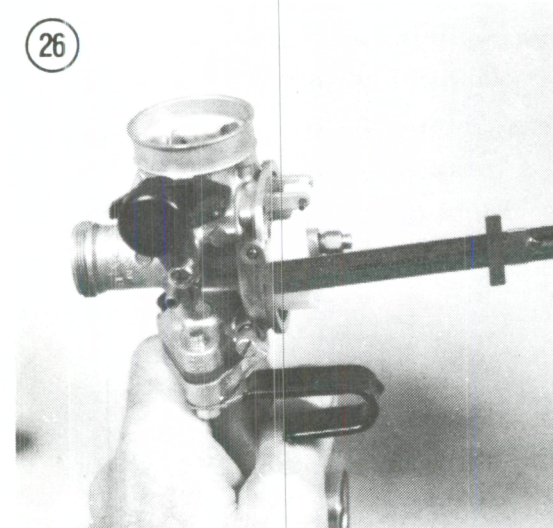
5. Reassemble and install the carburetor.

Needle Jet Adjustment

The position of the needle jet can be adjusted to affect the fuel-air mixture for medium throttle openings. It is not necessary to remove the carburetor body but the top of the carburetor must be removed for this adjustment.

NOTE

Honda does not provide specifications for all models and years. Some late models have a needle jet with a fixed clip position (non-adjustable). Refer to Table 1 before starting this procedure.



1. Place the ATC on level ground and set the parking brake or block the wheel so the vehicle will not roll in either direction.
2. Remove the seat/rear fender assembly.
3. Remove the fuel tank as described in this chapter.

NOTE

Before removing the top cap, thoroughly clean the area around it so no dirt will fall into the carburetor.

4. Unscrew the carburetor top cap (Figure 28) and pull the throttle valve assembly up and out of the carburetor.
5. Depress the throttle valve spring and remove the throttle cable from the throttle valve (Figure 29).

NOTE

Record the clip position prior to removal.

6. Remove the needle clip retainer and remove the jet needle.
7. Raising the needle (lowering the clip) will enrich the mixture during mid-throttle opening, while lowering the needle (raising the clip) will lean the mixture. Refer to Figure 30.
8. Refer to Table 1 for standard clip position.
9. Reassemble and install the carburetor top cap.

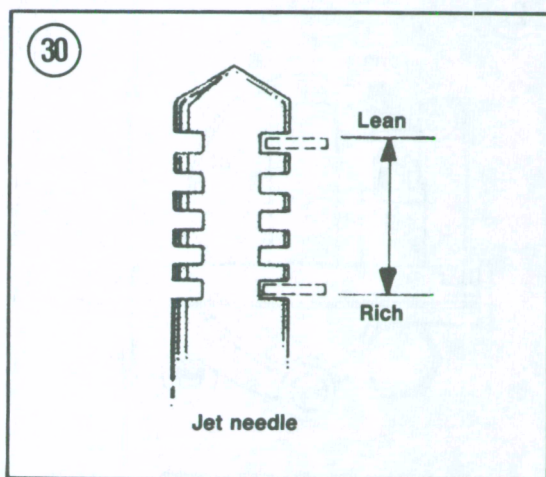
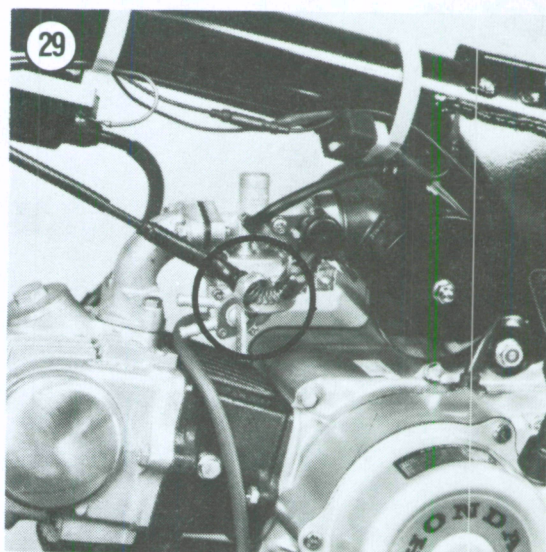
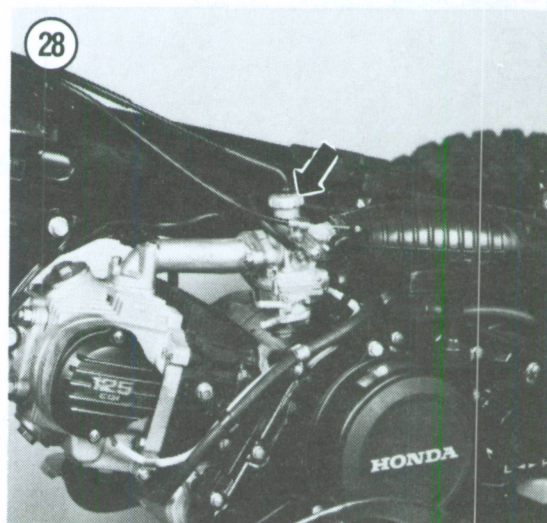
Idle Speed Adjustment

Refer to Chapter Three for this procedure.

Pilot Screw Adjustment

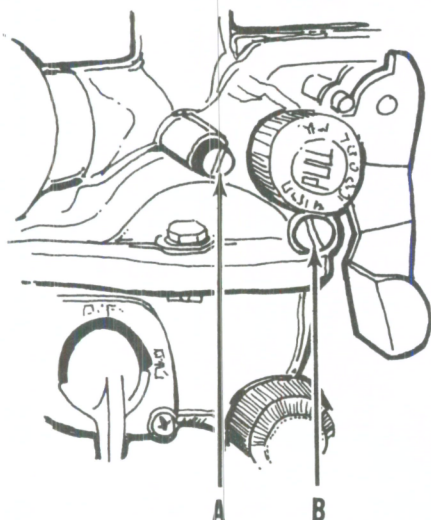
(ATC70; ATC90; 1979-1980 ATC110)

1. Place the ATC on level ground and set the parking brake or block the wheel so the vehicle will not roll in either direction.
2. Start the engine and let it reach normal operating temperature. If you are in an area where you can ride the ATC, approximately 5-10 minutes of stop and go riding is usually sufficient. Shut off the engine.
3. Connect a portable tachometer following the manufacturer's instructions. Restart the engine.
- 4A. On 1973-1974 ATC70 models, turn the idle adjust screw (A, Figure 31) to obtain the idle speed listed in Table 1.
- 4B. On 1978-on ATC70, all ATC90 and 1979-1980 ATC110 models, turn the idle adjust screw (A, Figure 31) to obtain the lowest stable idle speed.
5. Turn the air screw (B, Figure 31) clockwise until the engine speed decreases or begins to miss. Note the location of the air screw.

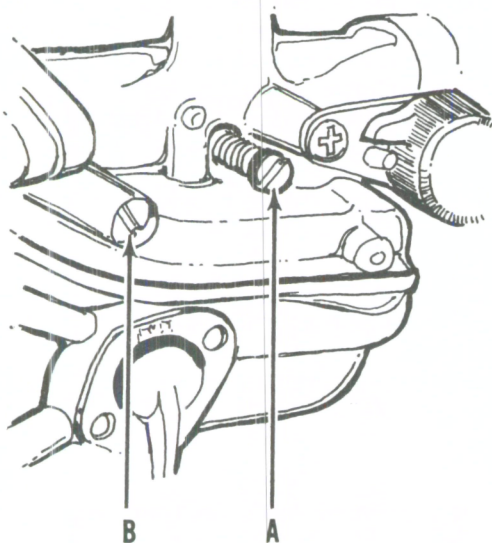


**ATC70 (1973-1974)
ATC90 (ALL)**

31



**ATC70 (1978-ON)
ATC110
ATC125M**



A. Idle screw
B. Air screw (or pilot screw)

6. Turn the air screw *counterclockwise* until the engine speed decreases or begins to miss. Note the location of the air screw.

7. Turn the air screw to a point midway between the locations noted in Step 5 and Step 6.

8. Check the engine idle speed and readjust if necessary to the idle speed listed in **Table 1**.

9. Open and close the throttle a couple of times and check for variations in idle speed. Readjust if necessary.

10. Disconnect the portable tachometer.

Pilot Screw Adjustment

(1981-on ATC110; ATC125M)

The pilot jet is pre-set at the factory and adjustment is not necessary unless the carburetor has been overhauled or someone has misadjusted it.

1. Place the ATC on level ground and set the parking brake.

2. For the preliminary adjustment, carefully turn the pilot screw (B, **Figure 31**) in until it seats *lightly* and then back it out the following number of turns:

a. ATC110: 1 1/8 turns out.

b. ATC125M: 1 3/8 turns out.

CAUTION

The pilot screw seat can be damaged if the pilot screw is tightened too hard.

3. Start the engine and let it reach normal operating temperature. If you are in an area where you can ride the ATC, approximately 5-10 minutes of stop and go riding is usually sufficient. Shut off the engine.

4. Connect a portable tachometer following the manufacturer's instructions. Restart the engine.

5. Turn the idle speed adjust screw (A, **Figure 31**) to obtain the idle speed listed in **Table 1**.

6. Turn the pilot screw (B, **Figure 31**) in slowly until the engine stops running, then stop. Back the pilot screw out 1 full turn.

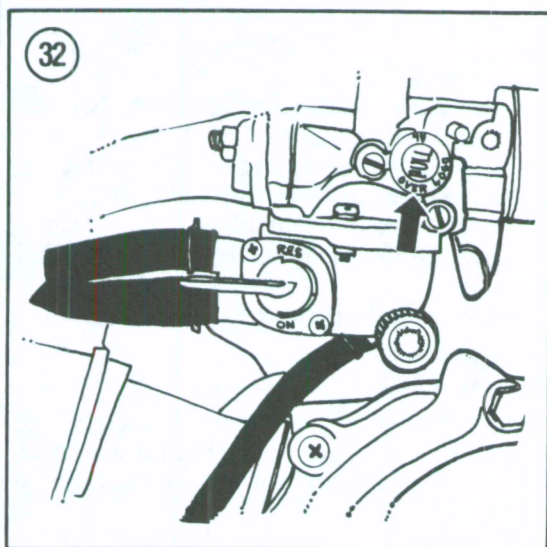
7. Restart the engine and check the engine idle speed. Readjust if necessary as described in Step 5.

8. Open and close the throttle a couple of times and check for variations in idle speed. Readjust if necessary.

WARNING

With the engine idling, move the handlebar from side to side. If idle speed increases during this movement, the throttle cable needs adjustment or it may be incorrectly routed through the frame. Correct this problem immediately. Do not ride the ATC in this unsafe condition.

9. Disconnect the portable tachometer.



High-elevation Adjustment (1973-1974 ATC70)

If the ATC is going to be ridden for any sustained period at high elevation (above 5,000 ft./1,500 m), the high elevation compensator knob (Figure 32), located on the left-hand side of the carburetor, must be pulled out.

CAUTION

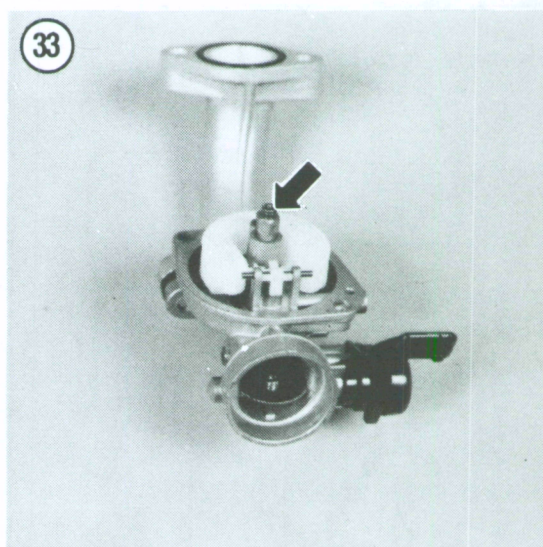
If the carburetor has been adjusted for high-elevation operation, the high elevation adjuster knob must be pushed in to the standard setting when ridden at elevations below 5,000 ft. (1,500 m). Engine overheating and piston seizure will occur if the engine runs too lean.

High-elevation Adjustment (All Other Models)

If the ATC is going to be ridden for any sustained period at high elevations (above 5,000 ft./1,500 m), the main jet should be changed to a one-step smaller jet. Never change the jet by more than one size at a time without test riding the bike and running a spark plug test. Refer to Chapter Three.

CAUTION

If the carburetor has been adjusted for high-elevation operation, it must be changed back to standard settings when ridden at elevations below 5,000 ft. (1,500 m). Engine overheating and piston seizure will occur if the engine runs too lean with the smaller jet installed.



1. Remove the carburetor as described in this chapter.
2. Remove the screws securing the float bowl and remove the float bowl.
3. Remove the main jet (Figure 33) and replace it with the factory recommended high elevation size. Refer to Table 2.
4. Install the float bowl.
5. Reinstall the carburetor as described in this chapter. Be sure to route the drain tube correctly.
6. Turn the pilot screw in 1/2 turn.
7. Start the engine and adjust the idle speed as described in Chapter Three.
8. Test ride the bike and perform a spark plug test, refer to Chapter Three.

THROTTLE CABLE

Removal

1. Place the ATC on level ground and set the parking brake or block the wheels so the vehicle will not roll in either direction.
2. Remove the seat/rear fender assembly.
3. Remove the fuel tank as described in this chapter.

NOTE

Before removing the top cap, thoroughly clean the area around it so no dirt will fall into the carburetor.

4. Unscrew the carburetor top cap and pull the throttle valve assembly up and out of the carburetor.
5. Depress the throttle valve spring and remove the throttle cable from the throttle valve.

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